AMENDMENTS TO THE CLAIMS

1.   (Previously presented) A computer-storage medium encoded with computer-executable instructions that, when executed on a computer connected to a computer network, perform a method for configuring the operation of the computer connected to the computer network, the method comprising:

acquiring at least one network attribute, each network attribute corresponding to an attribute of the computer network;

generating a value for at least one derived network DNA component according to at least one derived network DNA component specification, each derived network DNA component corresponding to an attribute of the computer network, and at least one of said at least one derived network DNA component specification referencing at least one of said at least one network attribute and processing by which the value of the derived network DNA component is generated from the referenced at least one network attribute;

determining a network DNA for the computer network, the network DNA classifying the computer network, and the network DNA comprising at least one of said at least one derived network DNA component;

testing a network DNA policy condition of a network DNA policy for satisfaction, the network DNA policy condition referencing at least one of said at least one derived network DNA component and the network DNA policy condition is satisfied when the referenced derived network DNA component has a value specified in the network DNA policy; and

initiating on the computer connected to the computer network an execution of a network DNA policy action of the network DNA policy, the execution of the network DNA policy action configuring network security settings of the computer that control communication over a connection to the computer network when the network DNA policy condition of the network DNA policy is satisfied.

2.   (Previously presented) The computer-storage medium of claim 1, wherein said at least one derived network DNA component comprises a network species component indicating a network species classification selected from among a plurality of network species classifications, the

plurality of network species classifications comprising an enterprise network, a home network, and a public place network.

3. (Previously presented) The computer-storage medium of claim 1, wherein at least one of said at least one derived network DNA component specification comprises a linear transformation of at least one value of at least one of said at least one network attribute.

4. (Previously presented) The computer-storage medium of claim 1, wherein said at least one derived network DNA component specification comprises a combination of said at least one network attribute.

5. (Previously presented) The computer-storage medium of claim 1, wherein at least one of said at least one derived network DNA component specification comprises a structured query language statement.

6. (Previously presented) The computer-storage medium of claim 1, wherein at least one of said at least one derived network DNA component specification comprises an object oriented language statement.

7. (Previously presented) The computer-storage medium of claim 1, wherein at least one of said at least one derived network DNA component specification comprises a scripting language statement.

8. (Previously presented) The computer-storage medium of claim 1, wherein acquiring at least one network attribute comprises acquiring a plurality of network attributes in an order specified by an acquisition priority list, the plurality of networks attributes specified by the acquisition priority list comprising at least a subset of a domain name, one or more IP addresses, verified presence of network infrastructure elements, parameters received from a network server, a communications

media type, a service provider, a nominal available communications bandwidth, a measured available communications bandwidth, logical network location and physical network location.

9.   (Previously presented) The computer-storage medium of claim 8, wherein the order specified by the acquisition priority list is in accord with an ordered set of network DNA policies that reference the plurality of network attributes.

10.   (Previously presented) The computer-storage medium of claim 1, wherein generating at least one derived network DNA component comprises generating each derived network DNA component referenced by a derived network DNA refresh list, the derived network DNA refresh list referencing at least one derived network DNA component dependent upon at least one acquired network attribute.

11-13. (Canceled)

14.   (Previously presented) The computer-storage medium of claim 1, wherein the network DNA policy reduces a probability of security vulnerability when switching between computer networks.

15.   (Canceled)

16.   (Currently amended) A computer-storage medium encoded with computer-executable instructions that, when executed by a computer connected to a computer network, perform a method, the method comprising:

        acquiring at least one attribute of the computer network;

        generating a network species component according to a derived network DNA component specification, the network species component specification referencing at least one of said at least one attribute of the computer network;

determining a network DNA of the computer network, the network DNA comprising the network species component, the network species component indicating a network species classification selected from among a plurality of network species classifications, the plurality of network species classifications including an enterprise network, a home network, and a public place network, the network species component indicating the network species is enterprise network if at least one first ~~network condition is met~~ combination is identified in the acquired at least one attribute of the computer network, the network species component indicating the network species is home network if at least one second ~~network condition is met~~ combination is identified in the acquired at least one attribute of the computer network, and the network species component indicating the network species is public place network if at least one third ~~network condition is met~~ combination is identified in the acquired at least one attribute of the computer network; and

providing the network DNA through an interface on the computer, the provided network DNA including the network species component,

wherein the first combination, the second combination and the third combination are different.

17.   (Canceled)

18.   (Previously presented) The computer-storage medium of claim 16, wherein the network DNA further comprises a network name component, a network cost component, a core access component, a core addressing component, a network security component and a network technology component.

19.   (Previously presented) The computer-storage medium of claim 18, wherein the network technology component comprises at least one network operational attribute.

20.   (Previously presented) The computer-storage medium of claim 16, wherein:

acquiring at least one attribute of the computer network comprises acquiring a network security attribute of the computer network, a network management attribute of the computer network and a network addressing attribute of the computer network; and

the derived network DNA component specification for the network species component is a function of at least the network security attribute, the network management attribute and the network addressing attribute.

21.   (Previously presented) The computer-storage medium of claim 16, wherein the method further comprises:

testing a network DNA policy condition of a network DNA policy for satisfaction, the network DNA policy condition referencing at least one network DNA component; and

initiating on the computer connected to the computer network an execution of a network DNA policy action of the network DNA policy, the execution of the network DNA policy action configuring network security settings of the computer for a connection to the computer network when the network DNA policy condition of the network DNA policy is satisfied.

22.   (Currently amended) A computerized system, comprising:

at least one computer connected to at least one computer network;

and at least one network DNA store configured to store a network DNA for at least one of said at least one computer network, the network DNA taxonomically classifying said at least one of said at least one computer network, and the network DNA comprising at least one derived network DNA component, the at least one derived network DNA component comprising a network species component configured to indicate a network species classification selected from among a plurality of network species classifications, the plurality of network species classifications including an enterprise network, a home network, and a public place network, the network species component indicating the network species is enterprise network if a first ~~network condition is met~~ combination of attributes of the computer network is detected, the network species component indicating the network species is home network if a second ~~network condition is met~~ combination of attributes of the computer network is detected, and the network species component indicating the network

species is public place network if a third ~~network condition is met~~ combination of attributes of the computer network is detected; and

an interface configured to provide network DNA to at least one application program.

23.   (Original) The computerized system of claim 22, wherein said at least one network DNA store comprises a current network DNA store and a network DNA history store.

24.   (Canceled)

25.   (Original) The computerized system of claim 22, further comprising a network DNA policy store configured to store at least one network DNA policy, at least one of said at least one network DNA policy referencing at least one of said at least one derived network DNA component of the network DNA.

26.   (Original) The computerized system of claim 25, wherein each network DNA policy comprises a derived network DNA components dependency list that lists each derived network DNA component of the network DNA referenced by the network DNA policy.

27.   (Original) The computerized system of claim 22, further comprising a network DNA policy enforcer configured to, at least: test a network DNA policy condition of a network DNA policy for satisfaction, the network DNA policy condition referencing at least one of said at least one derived network DNA component; and initiate an execution of a network DNA policy action of the network DNA policy if the network DNA policy condition of the network DNA policy is satisfied.

28.   (Original) The computerized system of claim 27, wherein the network DNA policy condition of the network DNA policy is satisfied if an expression specified by the network DNA policy condition evaluates to Boolean true.

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29.   (Original) The computerized system of claim 27, wherein the network DNA policy condition of the network DNA policy is satisfied if an expression specified by the network DNA policy condition evaluates to Boolean false.

30.   (Original) The computerized system of claim 27, wherein the network DNA policy condition of the network DNA policy is satisfied if evaluating an expression specified by the network DNA policy condition results in an evaluation error.

31.   (Original) The computerized system of claim 27, wherein the network DNA policy enforcer is further configured to, at least, test whether sufficient network DNA referenced by the network DNA policy condition of the network DNA policy has been acquired.

32.   (Original) The computerized system of claim 31, wherein: each network DNA component is associated with a confidence level; and sufficient network DNA has been acquired for the network DNA policy if the confidence level of each network DNA component referenced by the network DNA policy condition of the network DNA policy is greater than zero.

33.   (Original) The computerized system of claim 31, wherein: each network DNA component is associated with a confidence level; and sufficient network DNA has been acquired for the network DNA policy if the confidence level of at least one network DNA component referenced by the network DNA policy condition of the network DNA policy is greater than a sufficient network DNA acquisition threshold.

34.   (Original) The computerized system of claim 31, wherein: each network DNA component is associated with a confidence level; and sufficient network DNA has been acquired for the network DNA policy if a statistical function of the confidence levels of each network DNA component referenced by the network DNA policy condition of the network DNA policy is greater than a sufficient network DNA acquisition threshold.

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35.   (Original) The computerized system of claim 22, further comprising a network DNA generator configured to, at least generate said at least one derived network DNA component according to at least one derived network DNA component specification, at least one of said at least one derived network DNA component specification referencing at least one raw network DNA component of the network DNA associated with the computer network.

36.   (Original) The computerized system of claim 35, wherein the network DNA generator is further, at least, configured to maintain at least one derived-raw network DNA component dependency list, said at least one derived-raw network DNA component dependency list comprising, for each derived network DNA component generated by the network DNA generator, a list referencing each raw network DNA component referenced by each derived network DNA component specification associated with the derived network DNA component.

37.   (Original) The computerized system of claim 35, wherein the network DNA generator is further, at least, configured to generate each derived network DNA component referenced by a derived network DNA refresh list, the derived network DNA refresh list referencing each derived network DNA component dependent upon a changed raw network DNA component.

38.   (Original) The computerized system of claim 22, further comprising a network DNA acquirer configured to, at least, acquire a plurality of raw network DNA components in an order specified by a raw network DNA acquisition priority list, each raw network DNA component corresponding to an attribute of said at least one computer network.

39.   (Original) The computerized system of claim 38, wherein the order specified by the raw network DNA acquisition priority list is in accord with an ordered set of network DNA policies that reference the plurality of raw network DNA components.

40.   (Previously presented) A computer-storage medium having stored thereon a data structure comprising a network DNA of a computer network, the network DNA comprising at least one network classification component for taxonomically classifying the computer network, the at least one network classification component accessed by a computer to determine a configuration of said computer, the at least one network classification component of the network DNA comprising:

a network species component configured to indicate a network species classification of the computer network, the network species classification selected from among a plurality of network species classifications including enterprise network, home network and public place network, and the network species classification determined as a function of, at least, a type of network security, a type of network management and a type of network addressing.

41.   (Previously presented) The computer-storage medium of claim 40, wherein the network species classifications are determined as a function of, at least, network security, network management, network addressing, network mobility, network connectivity and network technology.

42.   (Previously presented) The computer-storage medium of claim 40, wherein the network DNA further comprises:

       a network name component;

       a network cost component;

       a core access component;

       a core addressing component;

       a network security component; and

       a network technology component.

43.   (Previously presented) The computer-storage medium of claim 40, wherein the network DNA further comprises a confidence level for each of the at least one network classification component.

44.   (Previously presented) The medium of claim 43, wherein:

at least one value of at least one of the at least one network classification component is determined probabilistically; and

the confidence level of said at least one of the at least one network classification component determined probabilistically corresponds to a margin of error in the determination.

45.   (Previously presented) The computer-storage medium of claim 1, wherein:

the value of each derived network DNA component has a confidence level associated therewith; and

the network DNA policy condition is satisfied when the referenced derived network DNA component has a value specified in the network DNA policy and the confidence level for the value of the referenced derived network components is above a threshold.

46.   (Previously presented) The computer-storage medium of claim 16, wherein determining the network DNA comprises:

determining the network species is enterprise network if the first network condition is met, the first network condition being met if a plurality of:

(a) the computer network is a secure network and is a managed network,

(b) the computer network is a private network, and

(c) the computer network provides connectivity to one or more specified enterprise resources;

determining the network species is home network if the second network condition is met, the second network condition being met if a plurality of:

(a) the computer network is an insecure network and an unmanaged network,

(b) the computer network provides ad hoc and/or limited connectivity between network nodes and other computer networks,

(c) the computer network is a private network, and

(d) the computer network is a premise network or a proximity network; and

determining the network species is public place network if the third network condition is met, the third network condition being met if a plurality of:

(a) the computer network is an insecure network and an unmanaged network,

(b) the computer network has an associated access cost, and

(c) the computer network is not a private network, is not a premise network and is not a proximity network.

47.   (Previously presented) The computerized system of claim 22, wherein:

determining the network species is enterprise network if the first network condition is met, the first network condition being met if a plurality of:

(a) the computer network is a secure network and is a managed network,

(b) the computer network is a private network, and

(c) the computer network provides connectivity to one or more specified enterprise resources;

determining the network species is home network if the second network condition is met, the second network condition being met if a plurality of:

(a) the computer network is an insecure network and an unmanaged network,

(b) the computer network provides ad hoc and/or limited connectivity between network nodes and other computer networks,

(c) the computer network is a private network, and

(d) the computer network is a premise network or a proximity network; and

determining the network species is public place network if the third network condition is met, the third network condition being met if a plurality of:

(a) the computer network is an insecure network and an unmanaged network,

(b) the computer network has an associated access cost, and

(c) the computer network is not a private network, is not a premise network and is not a proximity network.